

Appl. No. 09/961,412
Art Unit 1714
Monday, September 29, 2003
Reply to Office Action of June 27, 2003

REMARKS

Applicants respectfully request the Examiner to reconsider the present application in view of the foregoing amendments to the claims.

In the present amendment, claims 2, 6 and 10 have been canceled, and claims 13-17 have been added. Claims 1 and 3-4 have been amended. Thus, claims 1, 3-5, 7-9 and 11-17 are pending in the present application.

No new matter has been added by way of these amendments and new claims, because each amendment and new claim is supported by the present specification. For instance, the amendment to claim 1 is supported by the present specification at, for example, page 6, lines 3-7. The amendments to claims 3-4 are obviously editorial in nature. Further, these are clarifying and not narrowing amendments. Thus, Applicants reserve the right to pursue any equivalents of any feature of the claims. New claim 13 is supported at page 11, lines 16-19. New claim 14 has support in the present specification at page 11, lines 5-7. New claim 15 has support at page 12, lines 5-12. New claim 16 is supported in the paragraph bridging pages 19-20 of the present specification. And new claim 17 has support at page 20, lines 14-21. Thus, no new matter has been added.

Based upon the above considerations, entry of the present amendment is respectfully requested.

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In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

Issues Under 35 U.S.C. §§ 102 and 103(a)

Claims 1 and 9 stand rejected under 35 U.S.C. § 102(b) as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over Lewarchik et al. (U.S. Patent No. 5,484,842; hereinafter "Lewarchik '842").

Also, claims 1, 2, 9 and 10 stand rejected under 35 U.S.C. § 102(e) as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over Hintze-Bruning et al. reference (U.S. Patent No. 6,180,180 B1; hereinafter "Hintze-Bruning '180").

Further, claims 1-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Hintze-Bruning '180 alone, or in view of Fujita et al. (U.S. Patent No. 5,869,567; hereinafter "Fujita '567").

In addition, claims 1-3 and 9-11 stand rejected under 35 U.S.C. § 102(b) as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over Tachika et al. reference (U.S. Patent No. 5,356,989; hereinafter "Tachika '989").

Finally, claims 1-4 and 9-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Tachika '989.

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Applicants respectfully traverse all rejections, and request the Examiner to reconsider and withdraw all rejections.

The Present Invention and Its Advantages

The present invention is directed to an aqueous dispersion of polyester resin having an acid value of 8 to 40 mg KOH/g and a weight average molecular weight of 9,000 or more. In the present invention, the aqueous dispersion contains an organic solvent of less than 0.5% by mass. Further, the polyester resin contains aromatic polybasic acids as a constituent acid component at a ratio of 70% by mole or higher, and the polyester resin does not contain a metal sulfonate group.

Even the advantages of the present invention have been experimentally confirmed. For example, Table 3 of the present specification (see page 50) demonstrates that the present invention has unexpectedly achieved better molecular stability, no ink bleeding and peeling, and improved storage stability. Thus, with the present invention, a resin coating film that uses the claimed aqueous dispersion has improved hardness and water-proof properties, high solvent resistance, and is much more stable than conventional dispersions when stored over long periods of time.

In contrast, the cited references fail to disclose all features and advantages of the present invention.

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Distinctions over the Cited References and Combinations Thereof

The Lewarchik '842 reference is asserted to describe certain features of the present invention. However, Applicants respectfully submit that Lewarchik '842 fails to disclose all features as instantly claimed. For example, there is no disclosure of a polyester that contains aromatic polybasic acids at 70% by mole or higher as instantly claimed.

Because "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," the cited Lewarchik '842 reference cannot be a basis for a rejection under § 102(b). See *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Thus, because of the lack of disclosure of all features as instantly claimed, the rejection in view of Lewarchik '842 is overcome. Reconsideration and withdrawal are respectfully requested.

Applicants also submit that the rejection under § 103(a) is overcome. First, as mentioned, there is no disclosure of all claimed features, which is a requirement for a *prima facie* case of obviousness. See *In re Vaeck*, 947 F.2d, 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991). Second, the requisite motivation and reasonable expectation of success are lacking. Lewarchik '842 is directed to UV curable polyester containing aliphatic diols (i.e., see Abstract). Further, Lewarchik

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'842 discloses that aromatic polycarboxylic acids are undesirable (see Col. 2, lines 19-21). This is because aromatic polycarboxylic acids "tend to detract from UV-stability". Thus, one of ordinary skill in the art would not modify the Lewarchik '842 reference in order to achieve the present invention because this reference discloses the disadvantages of the present invention.

Applicants further submit that any cited reference used for a rejection under 35 U.S.C. § 103(a) must be considered in its entirety, i.e., as a whole, including those portions that would lead away from a claimed invention. See *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). In other words, the Lewarchik '842 reference must be read in its entirety, including the teaching away that having an aromatic polycarboxylic content would be have disadvantages when employed in the disclosed resin. This disclosure in Lewarchik '842 is contrast to the present invention since the claimed polyester is harder to hydrolyze by increasing the ratio of the aromatic polybasic acids, as disclosed in the present specification (see page 6, lines 2-17).

Thus, Applicants respectfully submit that the cited Lewarchik '842 fails to disclose all features and advantages of the present invention, and that the requirements for a *prima facie* case of obviousness have not been satisfied. Reconsideration and withdrawal of these rejections are respectfully requested.

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With regard to the cited Hintze-Bruning '180 reference, the Office Action refers Applicants to portions of Cols. 3, 17 and 18 for the disclosure of certain features of the present invention. However, Applicants respectfully submit that Hintze-Bruning '180 merely describes an aromatic polybasic acid component that contains about 30% by mole of trimetallic anhydride (see Col. 18, lines 24-34). There is no disclosure in Hintze-Bruning '180 of an aqueous dispersion with the features as instantly claimed. For instance, the cited reference fails to disclose a polyester resin containing aromatic polybasic acids at a 70% or more by mole range. With regard to the asserted combination of Hintze-Bruning '180 and Fujita '567, Fujita '567 does not account for the deficiencies of Hintze-Bruning '180. Thus, Applicants respectfully submit that the §§ 102(e) and 103(a) rejections are overcome due to the lack of disclosure in these references.

In addition, one of ordinary skill in the art would not be motivated or reasonably expect to be successful in modifying Hintze-Bruning '180 in order to achieve the present invention. This is because Hintze-Bruning '180 fails to describe hydrolyzability by increasing the ratio of the aromatic polybasic acids. With regard to the requisite motivation, there are three possible sources of motivation to combine references: the nature of the problem to be solved, the teaching of the prior art, and the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir.

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1998). Here, one of ordinary skill in the art would not modify Hintze-Bruning '180 in order to achieve the present invention since the skilled artisan would not know how to proceed due to the lack of disclosure of this reference.

Further, one of ordinary skill in the art would not be motivated or reasonably expect to be successful in combining the Hintze-Bruning '180 reference with Fujita '567 in order to achieve the present invention. First, Fujita '567 does not account for the deficient disclosure of the primary reference of Hintze-Bruning '180. Second, the cited Fujita '567 reference even discloses:

If the organic solvent is less than 0.5% by weight, a long time may be disadvantageously required for the formation of the polyester fine particles or polyester resin fine particles having a desired particle distribution are not formed.

(See Col. 11, lines 46-50). Fujita '567 specifically teaches away from achieving the present invention. In contrast to the cited references (or combinations thereof), the present invention unexpectedly achieves better viscosity stability during long-term storage, even when adjusting the content of an organic solvent to be 0.5% by weight or less. Thus, the cited references have been improperly modified or combined. Reconsideration and withdrawal of the rejections under §§ 102(e) and 103(a) are respectfully requested.

With regard to Tachika '989, Applicants respectfully submit that Tachika '989 fails to disclose all features as instantly claimed. The Tachika '989 even requires a specific amount of a metal sulfonate group

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in order to achieve its aqueous dispersion (see Col. 2, lines 34-44; Col. 3, lines 62-67). In fact, Tachika '989 discloses that without this metal sulfonate group, inferior results will be attained. Specifically, Comparative Examples 4 and 5 in Tachika '989 (Cols. 15-16) attain inferior aqueous dispersions. Further, Tachika '989 "teaches away" from using an organic solvent in certain amounts as instantly claimed. The mentioned Comparative Examples 4-5 have organic solvent amounts that are more than 0.5% by weight. Thus, Tachika '989 fails to disclose all features as instantly claimed, and the cited rejections are overcome.

Applicants also respectfully request the Examiner to declare allowable subject matter for the pending method claims since these claims are not at issue.

Unexpected Results

Further, Applicants respectfully submit that the present invention has achieved unexpected results, which rebuts any asserted *prima facie* case of obviousness.

As mentioned, the present invention has unexpectedly achieved better molecular stability, little or no ink bleeding and peeling, and improved storage stability (see Table 3 at page 50). Applicants further submit that conventional aqueous dispersions, such as Fujita '567, correspond to the Comparative Examples in the present specification, wherein the present invention is unexpectedly superior in the stability

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of the aqueous dispersion. Thus, Applicants respectfully request consideration of these unexpected results for the present invention, which rebut any asserted *prima facie* case of obviousness based on the cited references.

Conclusion

Applicants respectfully submit that the cited references fail to disclose all features as instantly claimed, and that not all requirements for a *prima facie* case of obviousness have been satisfied. Further, there are other patentable distinctions that exist for the present invention, including the existence of unexpected results.

A full and complete response has been made to the Office Action. Applicants respectfully request that a timely Notice of Allowance issue for the present case.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Eugene T. Perez (Reg. No. 48,501) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees

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required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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